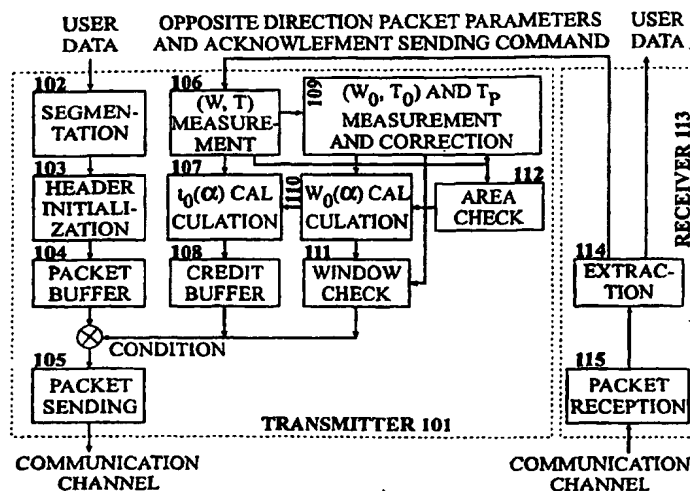




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H04L 12/00		A2	(11) International Publication Number: WO 00/21244
			(43) International Publication Date: 13 April 2000 (13.04.00)
(21) International Application Number: PCT/HR99/00022 (22) International Filing Date: 29 September 1999 (29.09.99) (30) Priority Data: P980536A 5 October 1998 (05.10.98) HR (71)(72) Applicant and Inventor: OZEGOVIĆ, Jurije [HR/HR]; Istarska 2, 21000 Split (HR). (74) Agent: PAIC, Sutjeska; Goricka 4, 21000 Split (HR).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published Without international search report and to be republished upon receipt of that report.	

(54) Title: DEVICES WITH WINDOW - TIME - SPACE FLOW CONTROL (WTFC)



(57) Abstract

In packet switching telecommunications networks, flow control is used to obtain optimal network working point, regulating the transmitter packet sending rate. The state of overload (congestion) or underutilization of the network can be detected explicitly using signaling from network nodes, or implicitly using number of packet (window W) and round trip time (T) measurements. The Window-Time-Space Flow Control (WTFC) is a method of determining the belonging part of network capacity, optimal packet sending rate and optimal window, based on the measured (W, T) point in the window-time space and knowledge about total network capacity (W_0, T_0). In this way, devices with WTFC, nodes and terminals, keep optimal network working point near the on average empty queues mode of operation. With networks utilizing WTFC, nodes can signal network parameters at connection establishment only. After that, all WTFC processing is done by terminal packet transmitter. WTFC transmitter determines both optimal window and optimal sending rate, thus improving regulation stability, limiting the number of packets in the network, and decreasing the variance of transmission rate.